Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of:	)	
	)	
Amendment of Part 97 of the Commission's Rules	)	WT Docket No. 05-235
To Implement WRC-03 Regulations Applicable to	)	
Requirements for Operator Licenses in the	)	RM-10781, RM-10782, RM-10783,
Amateur Radio Service	)	RM-10784, RM-10785, RM-10786,
	)	RM-10787, RM-10805, RM-10806,
	)	RM-10807, RM-10808, RM-10809,
	)	RM-10810, RM-10811, RM-10867,
	)	RM-10868, RM-10869, RM-10870

NOTICE OF PROPOSED RULE MAKING AND ORDER

Comments of Clifford B. Faulkner

To: The Honorable Kevin J. Martin, Chairman, Federal Communications Commission

Re: Proposed Revision of Amateur Radio Service Rules, WT Docket No. 05-235

I. Introduction

I would like to take this opportunity to express to you my sincere thanks for the opportunity to comment on this notice of proposed rulemaking (NPRM). I am writing to you today to express my support for dropping the five word-per-minute requirement for the General-class license. My opposition to the requirement is premised on three observations regarding the current state of the amateur radio hobby. First, that requiring Morse code proficiency as a pre-requisite to licensing is unnecessary. Second, that requiring Morse code proficiency is actually detrimental to some of the aims of the hobby. Third, that requiring Morse code proficiency as a pre-requisite to licensing does not even serve its presumed purpose of ensuring widespread proficiency in sending and receiving Morse code messages among amateur radio operators.

II. Requiring Morse Code Proficiency as a Pre-Requisite to Licensing is Unnecessary

A. Diminishing Use

My first premise, that Morse code testing is unnecessary, has found widespread support throughout other nations of the world. Since the dropping of the five words-per-minute requirement for radio operation at frequencies below 30 MHz by the International Telecommunications Union (ITU), many nations have rushed to eliminate this licensing requirement. A few of the nations that have eliminated the Morse requirement are Ireland, Denmark, Finland, Hong Kong, Kenya, Germany, Papua New Guinea, Croatia, Sweden, and Singapore. Other countries where the requirement remains appear to be headed in the same direction. For example, a recent survey by the Radio Amateurs of Canada (RAC) indicated that 66% of Canadian hobbyists wanted to see that country's Morse testing dropped as a requirement for access to high frequency (HF) bands.[1] Sixty percent of those who favored dropping the requirement were hobbyists who had already passed that nation's Morse test.

As fewer hobbyists around the world are required to know Morse code, a US radio operator will become less and less likely to encounter a signal in Morse code that requires him to receive and understand it. In fact, even now, a US hobbyist who actively seeks contact with other aficionados of Morse code may have trouble finding anyone who shares interest. The internet and print media serving those who remain interested in sending and receiving Morse code dedicate significant time to the subject of how to like-minded hobbyists. As fewer countries restrict the HF bands to users who are capable of sending and receiving Morse code, the likelihood of encountering a Morse signal on those bands will diminish even more.

[1] RAC website at www.rac.ca/news/mresults.htm

B. The Advent of New Technology and Techniques

Even where a US user encounters a Morse code transmission from abroad or from within the US, he will always have the ability to decode it by using one of the many computer programs that offer automatic encoding and decoding. An internet search for such programs reveals a number of them that can be quickly and easily downloaded as shareware or freeware. For example, one website offering a Morse translator called "Multimode" advertises that it will, "decode several different modes of non-voice communication often heard on shortwave" and that, "You can also transmit in many of these modes, as well." [2]

Technology has not only eliminated the need for an operator to send or receive the code "by hand", in some circumstances it has obviated the need for the code altogether. One of the principle reasons for the Morse requirement's original inclusion in the ITU RR S25.5 regulation was so that official stations could communicate instructions to the amateur user to change frequencies or to cease broadcasting. Official stations no longer broadcast such instructions using Morse.[3]

Morse code's use has also been in decline among other professional users for several years. In addition to the official monitoring stations referred to above, the US military as well as emergency services professionals from several other nations have all but eliminated their official use of Morse code. For example, the code has long since been eliminated as a means of communications with maritime emergency monitoring stations in the US, Britain, France and Germany.[4] Such organizations cite the much greater speed and accuracy of transmissions utilizing satellite-based voice or data packet modes.

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[2] Blackcat Multimode website at http://www.blackcatsystems.com/software/multimode.html
[3] RAC Position paper extract available at http://www.nocode.org/articles/rac.html
[4] BBC News article of December 31, 1997 available at http://news.bbc.co.uk/1/hi/world/43351.stm

C. No Longer the Mode of Choice for Those in Distress

The code's utility in emergency situations, such as in a maritime emergency, has long been one of the principle justifications for requiring the ability to send/receive Morse code by hand/ear. The code's simple two-tone structure allows it to be sent across long distances at extremely low power using the simplest of technology. Oftentimes the code's very form, which sends one letter, number or character at a time, is more conducive to communicating a message through heavy distortion or electronic interference. A message that has been received and decoded by a listener that is missing several characters will still prove effective in communicating the gist of the message. A voice broadcast that gets only sixty or seventy percent of its word through may communicate a completely distorted or useless meaning.

However, as fewer people around the globe (including military and first responders) are forced to learn the code, the likelihood of emergency communications being sent via Morse diminishes. On the contrary, distress calls by members of the public are far more likely to be sent by voice or text messaging over cellular telephones or over family radio system (FRS) or citizens' band (CB) radios.

These electronic "lifelines" to the outside world have never required any knowledge of Morse code. Therefore, it is highly unlikely that the average user of one of these communications devices will have the requisite knowledge to send a distress call using the code. Naturally, if virtually no one is using the code to send an emergency message, it is less essential that potential receivers of the message know the code.

During recent hurricanes along the gulf coast and in Florida, ham radio operators were able to assist by providing communications support to emergency operations centers (EOC's) or by relaying distress calls. In several cases cited in a story on MSNBC's website

stranded hurricane victims used cell phones to call friends or family who then used ham radios to relay information to emergency personnel. The victims had been unable to contact emergency services personnel directly because of jammed 911 phone lines or damage to local telecommunications infrastructure. None of the reported instances, however, cited anyone using Morse code to transmit their distress signal.[5]

What is essential in such situations, though, is a maximum number of potential receivers. A distress call sent in circumstances where power is low and the airwaves are overloaded has a much better chance of being heard if there are as many people as possible monitoring at any given time.

In the wake of the recent gulf coast hurricanes, some have advocated including family radio systems (FRS) in household disaster preparedness kits. One such proponent, Eric Knight, advocates designating 462.5625 MHz, which corresponds to channel 1 on the FRS radios, as the emergency channel to be monitored by amateur radio operators.[6] FRS radios, however, can typically broadcast only a meager two miles or so. If dropping the Morse code requirement will permit significantly greater numbers of participants to take up the hobby, it would increase the odds that such a distress call would be received and passed on to the proper authorities.

III. Requiring Morse Code Proficiency is Detrimental to Some Aims of the Hobby

A. International Goodwill

As discussed above, the elimination of the Morse requirement for licenses in other countries reflects a determination by those countries that Morse is no longer essential as a pre-requisite for licensing. However, the elimination of the Morse requirement also reflects the

[5] MSNBC news article of September 6, 2005 available at http://www.msnbc.com/id/9228945
[6] National SOS radio Network website at http://www.nationalsos.com

growing number of hobbyists in other countries who simply are not interested in communicating in that mode. One of the main reasons that US hobbyists seek to obtain the General Class license is to gain access to the HF band for making contacts with those in other countries. Therefore, continuing to require Morse proficiency of US users will have the effect of limiting the number of international contacts available to them.

Ironically, by retaining the requirement for Morse code proficiency as a prerequisite to obtaining a license, the FCC will be undermining one of its own stated goals of enhancing "international goodwill".[7] In fact, one might also make the argument that by limiting the number of US users on HF bands, the US is missing an opportunity to share our nation's values with the rest of the world. This is especially true regarding those parts of the world where our reputation and values are under attack by enemies who seek to leverage technology like the internet in their propaganda efforts. Contacts with average American hobbyists may have the effect of dispelling distorted negative images of the US in parts of the world where most Americans are unable or ill-advised to visit.

B. Advancing Skills in Technology & Communications

Requiring Morse proficiency of US hobbyists will continue to constitute a barrier to the growth of their numbers even as the number of users around the world increases. The ultimate result will be that while users, especially youth, in other countries enhance their familiarity with electronics and telecommunications technology, many would-be users in the US will lose out on the opportunity. This lost opportunity to develop high technology skills could result in another missed opportunity for American youth to improve their competitiveness for high technology jobs later in life.

[7] FCC Notice of Proposed Rule Making and Order WT Docket No. 05-235, July 19, 2005, footnote 7

IV. Requiring Morse Code Proficiency Does Not Ensure Proficiency

A. Gatekeeper Function

One of the principle reasons for originally adopting the requirement to know Morse was the "gate-keeping" function it served. A leading opponent of the Morse requirement, No-Code International (NCI), claims that the requirement was first proposed in the 1930's by an American Radio Relay League (ARRL) official named Clinton B. DeSoto as a means of limiting the growth of the number of operators.[8] The theory, apparently, was that by erecting an artificially high standard for entry into the hobby, the FCC could ensure that anyone who earned a license would possess the desire and maturity to operate their radio in accordance with the applicable regulations.

Morse code may have represented the state-of-the-art and therefore an appropriate threshold skill for limiting the number and type of participants the service should admit in the 1930's, but that is not the case today. Would-be applicants for the General class license today have already mastered a host of subjects including sending and receiving data in voice, digital packet, facsimile and television modes as well as the applicable domestic and international regulations. Many even learn to design and build their own radio equipment and antennas.

Although placing a significant obstacle in the path of would-be hobbyists may have seemed like a good idea in the limited government world of the depression-era United States, it now serves only to obstruct the growth of the service. Young people in the US today (the future of the amateur radio service) have a dizzying array of pastimes competing for their all-too-limited attention spans. Many of those pastimes are of questionable value in developing the social or economic skills that will prove essential to success in their adult years. The last

[8] NCI website at www.nocode.org/articles/filter.html

thing the federal government should be doing is erecting an artificial barrier to the participation of these young people in amateur radio.

B. Preserving a Perishable Skill

Even where Morse code is the preferred means of communication, eliminating Morse proficiency as a pre-requisite to licensing will not prevent those interested in this particular mode from utilizing it. In fact, many of those who prefer to communicate in Morse attest to the fact that they initially learned it only because it was required to obtain their license.[9] Their actual interest in the use of the code came about much later.

Routine use and practice of Morse code is more important than one-time testing in preserving its use and advancement. Once a hobbyist is licensed nothing obligates him to remain proficient in the use of Morse code. Many currently licensed hobbyists freely admit that they learned the code only to obtain their license (often at a time when the requirement was 13 words-per-minute or more) and have rarely or never used it since.

If the FCC eliminates this barrier to the entry of future participants in the hobby and significant numbers of new members enter it, the overall number of people who eventually take up using the code may even grow as a result. Once Morse is no longer required, those who remain dedicated to its use (and who are often formed into clubs and other social organizations) will certainly continue to use the code and to solicit new initiates. Obviously, the opportunities for such organizations to recruit new members are more likely to increase as the total numbers of the target audience increase.

V. Conclusion

[9] National Council of Volunteer Examiners Petition I at pg. 3 cited in FCC Notice of Proposed Rule Making and Order WT Docket No. 05-235, July 19, 2005, footnote 7

In conclusion, dropping the five word-per-minute requirement for the General-class license will further the principles on which the amateur radio service in the US is based. By eliminating this unnecessary, detrimental and inherently flawed requirement, the FCC can remove an obstacle to the growth of the service. Expanding the number of new hobbyists will benefit the both the hobby and the US. Among the benefits of dropping the requirement are; expanding the pool of amateur radio operators available to assist in an emergency, increasing the number of contacts between US and international hobbyists, increasing opportunities for young people in the US to become familiar with radio and communications technology and possibly even an ultimate increase in the pool of persons familiar with Morse code. Many other nations around the world have recognized that the Morse requirement is outdated and are beginning to reap the benefits of modernizing their regulations. It is my hope that the US, which prides itself on being a pre-eminent world leader and innovator, will not delay any longer in joining them. Thank you for providing me with this opportunity to be heard.